What is claimed is:

1. A self-dispensing system for dispensing a measured quantity or volume of a sample comprising:

one or more storage devices for holding a sample to be dispensed;

a dispensing mechanism connected to each of said one or more storage devices, said dispensing mechanism being in dispensing communication with said storage device for precisely dispensing a measured quantity of said sample from said storage device; and

a driving mechanism that drives said dispensing mechanism thereby dispensing said sample.

2. The self-dispensing system of claim 1, wherein said one or more storage devices comprises is a multi-well plate, wherein each of said wells of said multi-well plate has a corresponding dispensing mechanism.

3. The self-dispensing system of claim 2, wherein said multi-well plate further comprises a standard microtiter plate having a plurality of wells on evenly spaced centers.

4. The self-dispensing system of claim 2, wherein said standard microtiter plate further comprises one or more of a 4-well plate, a 24-well plate, a 96-well plate, a 384-well plate, a 1536 well plate, and a 9600-well plate

5. The self-dispensing system of claim 2, wherein said standard microtiter plate further comprises one or more of a 96-well plate with wells on about 9mm centers having a capacity of about 30 microliters to about 1500 microliters and a 96-well plate with wells on about 1mm centers having a capacity of about 1 microliters.

6. The self-dispensing system of claim 1, wherein said storage device comprises:

a reservoir for holding said sample; and

at least one opening in said reservoir for communicating a sample between said reservoir and said dispensing mechanism.

7. The self-dispensing system of claim 6, wherein said storage device comprises a collapsible reservoir.

8. The self-dispensing system of claim 6, wherein said storage device comprises a semi-rigid reservoir having an dispensed volume replacement mechanism for replacing a volume equal to a volume of said measured quantity of said dispensed sample.

9. The self-dispensing system of claim 1, wherein said dispensing mechanism is a time and pressure type pump.

10. The self-dispensing system of claim 1, wherein said dispensing mechanism comprises a positive displacement pump-type dispensing mechanism capable of precisely and reproducibly dispensing a measured quantity of said sample.

11. The self-dispensing system of claim 1, wherein said dispensing mechanism is reproducibly in volume for each of said dispensed measured quantity of said sample to an accuracy of about 5 microliters.

12. The self-dispensing system of claim 1, wherein said dispensing mechanism is reproducibly in volume for each of said dispensed measured quantity of said sample to an accuracy of about 1 microliters.

13. The self-dispensing system of claim 1, wherein said dispensing mechanism is reproducibly in volume for each of said dispensed measured quantity of said sample to an accuracy of about 0.5 microliters.

14. The self-dispensing system of claim 1, wherein said dispensing mechanism is reproducibly in volume for each of said dispensed measured quantity of said sample to an accuracy of about 0.1 microliters.

15. The self-dispensing system of claim 10, wherein said positive displacement pump-type dispensing mechanism further comprises:

an inlet valve having an inlet opening for receiving said sample to be dispensed from said storage device;

an actuator fluidly connected to said inlet valve for dispensing said sample; and

an outlet valve fluidly connected to said actuator for receiving and controlling a flow of said dispensed sample from said actuator.

16. The self-dispensing system of claim 10, wherein said positive-displacement pump-type dispensing mechanism further comprises:

an inlet valve selectively movably between an open position wherein said inlet valve allows a flow of said sample from said storage device to said actuator and a closed position wherein said inlet valve prevents a flow of said sample from said actuator back into said storage device;

an actuator having a suction stroke that draws a sample from said reservoir as said actuator moves in a first direction, and a discharge stroke that pushes said sample out as said actuator move in a second direction; and

an outlet valve which is selectively movable between an open position wherein said outlet valve allows said sample to be dispensed on said discharge stroke and a closed position wherein said outlet valve prevents air from entering said actuator.

17. The self-dispensing system of claim 10, wherein said dispensing mechanism comprises a cow udder type of dispensing mechanism.

18. The self-dispensing system of claim 10, wherein said dispensing mechanism comprises a membrane pump type of dispensing mechanism.

19. The self-dispensing system of claim 10, wherein said dispensing mechanism comprises a embedded balls type of dispensing mechanism.

20. The self-dispensing system of claim 10, wherein said dispensing mechanism comprises a two-dimensional pump type of dispensing mechanism.

21. The self-dispensing system of claim 10, wherein said dispensing mechanism comprises a rotary valve type of dispensing mechanism.

22. The self-dispensing system of claim 10, wherein said dispensing mechanism comprises a steam engine type of dispensing mechanism.

23. The self-dispensing system of claim 1, further comprising a filter disposed between said storage device and said dispensing mechanism.

24. The self-dispensing system of claim 1, wherein said self-dispensing storage device, with its sample, are freezable to at least about –20C, and is capable is being thawed and dispensed.

25. The self-dispensing system of claim 1, wherein at least said storage device and said dispensing mechanism are disposable after said sample has been completely dispensed.

26. The self-dispensing system of claim 1, wherein said driving mechanism is positioned internal to said dispensing mechanism.

27. The self-dispensing system of claim 1, wherein said driving mechanism activates one or more of said dispensing mechanisms corresponding to said one or more storage device at a time.

28. The self-dispensing system of claim 1, further comprising an automated system having one or more robots for positioning said self-dispensing storage device with respect to a workstation or another storage device and a controller for initiating a dispensing operation of said sample by said self-dispensing storage device.

29. A self-dispensing system for the dispensing of chemical reaction samples comprising:

a chemical reaction matrix for holding one or more samples; and

a dispensing mechanism formed as part of said chemical reaction matrix for dispensing said samples.

30. The system of claim 29 wherein pre-selected claimed or biological reactions take place at at least some of said locations.

31. A self-dispensing system for transferring samples from one self-dispensing storage device to another self-dispensing storage device or a workstation comprising:

a first self-dispensing storage device comprising:

a storage device having one or more reservoirs for holding a sample to be dispensed;

one or more corresponding dispensing mechanisms connected to and in dispensing communication with each of said one or more reservoirs of said storage device;

a second self-dispensing storage device comprising:

a storage device having one or more reservoirs for holding a sample to be dispensed;

one or more corresponding dispensing mechanisms connected to and in dispensing communication with each of said one or more reservoirs of said storage device;

a driving mechanism for driving said dispensing mechanism of said first self-dispensing storage device; and

wherein a precise and reproducible measured volume of said sample is dispensed from said one or more reservoirs of said first self-dispensing storage device to said one or more reservoirs of said second self-dispensing storage device.

32. The self-dispensing system of claim 31, further comprising a robotic system having one or more robots for positioning said first self-dispensing storage device in relation to said second self-dispensing storage device.

33. The self-dispensing system of claim 32, wherein said first self-dispensing storage device is positioned over said second self-dispensing storage device.

34. The self-dispensing system of claim 32, wherein said one or more robots have autonomous positioning and transferring features for locating said robots and said onboard self-dispensing storage devices with respect to one another and for dispensing said measured volume of said sample.

35. The self-dispensing system of claim 31, wherein said self-dispensing storage devices are used in pharmaceutical research laboratory processes including one or more of sequencing, genetic sequencing, genotyping, functional genomics, combinatorial chemistry, reagent distribution, high throughput screening, clinical diagnostics, and industrial compound testing.

36. A method for self-dispensing a measured quantity of a sample from a source storage device to a destination storage device comprising:

(a) providing one or more storage devices each having one or more reservoirs for holding a sample;

(b) connecting a dispensing mechanism capable of precisely and reproducibly dispensing a measured volume of a sample in dispensing communication with each of said one or more reservoir of each of said one or more storage devices, said dispensing mechanism and said storage device forming a self-dispensing storage device;

(c) positioning said self-dispensing storage device in dispensing relationship with a destination device or another self-dispensing storage device capable of receiving said measured volume of said dispensed sample; and

(d) driving said dispensing mechanism using a driving mechanism to dispense said measured volume of said sample.

37. The self-dispensing method of claim 36, further comprising:

(a) opening an inlet valve and closing an outlet valve;

(b) activating an actuator to draw a measured quantity of said sample from said reservoir of said storage device into said dispensing mechanism;

(c) closing said inlet valve and opening said outlet valve; and

(d) activating said actuator using said driving mechanism to dispense said measured volume of said sample from said dispensing mechanism to said destination device.

38. The self-dispensing method of claim 36, further comprising disposing said self-dispensing storage device after said sample has been depleting from said one or more reservoirs.

39. The self-dispensing method of claim 36, further comprising dispensing said sample in one or more measured drops until said measured quantity has been dispensed by said dispensing mechanism, wherein said measured drops are precisely measured and reproducible in volume.

40. The self-dispensing method of claim 36, further comprising a method of initially filling said source storage device comprising the steps:

extending a tube extending from a bottom of said reservoir;

dipping said tube in a separate sample source

applying a vacuum to a said storage device to pull a volume of sample from said separate sample source into said reservoir through said tube;

pinching off said tube after said reservoir has been filled with said sample.

41. The self-dispensing method of claim 40 further comprising the step of filling said reservoir through aspiration.

42. The self-dispensing method of claim 40 further comprising the step of forever removing the ability of said storage device from loading another sample.